REMARKS

Claim 8 has been amended to delete the word "substantially". In view of this amendment and the following remarks a reconsideration and allowance of pending claims 1-13 is requested.

The Examiner objected to the term "substantially" in claim 8 and this has been deleted. The Examiner also rejected claim 6 under 35 U.S.C. § 112 stating that the phrase "said other free lift cylinder" has no antecedent basis. This is not correct. Claim 6 is dependent on claims 4 and 5, and in claim 4 the "other free lift cylinder" is introduced. No amendment to claim 6 is deemed necessary and it is believed the 35 U.S.C. § 112 issues have been addressed.

The Examiner has rejected claims 1-13 as being anticipated by the Kato patent No. 6,505,710. Applicants were aware of this reference and the claims were drafted to patentably distinguish over the disclosure in this patent. The Examiner also rejects claims 8 and 9 as being obvious in view of Kato and Riddle. The Riddle patent No. 4,721,187 is recognized in the present application as the most material prior art and is described in the present application and shown in Fig. 2. Claims 8 and 9 were drafted to patentably distinguish over both references.

The primary objective of the present invention is to improve the operator's field of view when looking through a lift truck mast structure from the operator's compartment. As shown in Fig. 7, this is accomplished by compactly arranging the mast elements to reduce the visual obstruction they present from the vantage point of the operator's compartment. This is also the objective of the Kato reference as shown in Fig. 12 thereof. The manner in which these mast elements are "packaged" is the subject of this invention and the unique way they are arranged by applicant is recited in the pending claims.

To appreciate the distinction between the present invention and the prior art Kato and Riddle references we enclose herewith Exhibit A which is Fig. 6 of the present

application and the cover pages from the Kato and Riddle references. Four important mast elements have been color coded:

Base Rails - Yellow
Mid Rails - Pink
Top Rails - Green
Lift Chain Pulleys - Blue.

Note in Kato that the three mast rail sections yellow, pink, green are all "C" shaped and nested laterally in a row and the lift chain pulleys (blue) are positioned between the forward and rear flanges on all of these mast rail sections. Note in Riddle the base rail (yellow) is "C" shaped, the mid and top rails (pink & green) are "I" shaped and the lift chain pulleys (blue) are positioned to the rear of the mid rails (pink) and alongside the rear flange of the top rail (green).

Now compare with the preferred embodiment of the present invention shown in Fig. 6. The base rail (yellow) is "C" shaped and the mid rail (pink) and top rail (green) are both "I" shaped in cross-section. The lift chain pulleys (blue) are located completely forward of the top rail (green) and the rear flanges on the base rail (yellow) and top rail (green) are substantially aligned in the fore/aft direction. These distinctions are specifically recited in independent claims 1 and 11 of the present application and are believed to be patentable.

It should be appreciated that it is not an easy matter to change the shape, size or location of these mast elements. The mast sections must withstand high forces during lift truck operation and this puts severe limitations on the design of their cross-sectional shapes and sizes. The lift chain pulleys (blue) must be supported by the mid rail (pink) and the chain which rides over them must connect between the base rail (yellow) and the top rail (green). The trick is to package these elements in such a manner that they perform their functions properly while presenting a minimal obstruction to the operator's field of view. Inches in packaging these elements at the mast translates to feet of field of view at the ends of the forks.

The pending claims are believed to recite patentable subject matter. The key distinction in claim 1 over the prior art is the positioning of the lift chain pulleys (blue) forward of the top rails (green). This feature is not disclosed in the prior art and it is an important aspect of the compact packaging concept of the present invention. Dependent claim 2 recites that the main lift cylinders are located to the rear of the base rails (yellow) whereas the Kato patent locates these cylinders 2 in the web of the base rails (yellow). Dependent claim 4 locates free lift cylinders (160 & 162) to the rear of the top rail (green) with one of them laterally aligned inboard the top rail (green) and the other aligned directly behind the rail (green). This asymmetric construction is not disclosed in the prior art. Again, this is not simply a matter of choice, but rather a specific packaging of mast elements to maximize operator field of view as shown in Fig 7.

Dependent claims 5 and 6 recite the specific location of hose pulleys. One hose pulley (181) is located on top of the free lift cylinder 160 and the other hose pulley 205 is located directly to the rear of the top rail (green). The only hose pulley (27) disclosed in Kato is not located to the rear of the mast rails, and the location of the hose pulleys 26 and 27 is not disclosed in Riddle.

Dependent claim 8 recites the cross-sectional shapes of the rail members (yellow, pink, green) and specifically aligns the rear flanges on the base rail (yellow) and top rail (green). Dependent claim 9 specifically recites that the lift chain pulleys (blue) extend through the web portion of the mid rails (pink). No such structure is suggested by the prior art. Kato mounts the lift chain pulleys (blue) on top of the mid rail (see Fig. 3 therein) and Riddle mounts it to the rear of the mid rail (pink).

Dependent claim 10 also specifically recites that the lift chain pulleys (blue) are rotatably mounted in openings formed in the web portion of the mid rail (pink). No such structure is suggested by the prior art.

Independent claim 11 specifically recites the shapes and relative locations of the rail members (yellow, pink, green). The shapes are different than those disclosed in Kato and the relative positions are different than those disclosed in Riddle. As

explained above, these are not just random choices of design, but specifically designed to package the elements in an optimal way from an operator field of view standpoint.

Dependent claims 12 and 13 specifically recite the location and mounting of the lift chain pulley. As explained above, neither the location or mounting of the lift chain pulley as recited in these claims is suggested by the prior art.

Favorable reconsideration and allowance of this application is respectfully requested.

The Commissioner is authorized to charge any fees under 37 CFR § 1.17 that may be due on this application to Deposit Account 17-0055. The Commissioner is also authorized to treat this amendment and any future reply in this matter requiring a petition for an extension of time as incorporating a petition for extension of time for the appropriate length of time as provided by 37 CFR § 136(a)(3).

Respectfully submitted,

ROBERT LEWIS

Date: Jan 9, 2006

Barry E. Sammons
Quarles & Brady, LLP
Reg. No. 25,608
Attorney for Applicant
411 East Wisconsin Avenue
Milwaukee WI 53202
414/277-5705